



# ZAMACE

## Zambia Agricultural Commodities Exchange

### Experiences and Constraints

Risk Management in African Agricultural Markets; Taking Stock of what has and hasn't worked

AAMP 4<sup>th</sup> Policy/Training Seminar

Lilongwe, Malawi

September, 2010

## Outline



- *Who is ZAMACE*
- *Services*
- *Partnerships*
- *Challenges*

# Mission Statement



ZAMACE will provide an efficient and vibrant Zambian and regional agricultural commodity exchange, supported by a warehouse certification and receipts system to enhance market access, liquidity and credibility in the commodities market.

- *Established in May, 2007*
- *Response to demand for a market mechanism that addresses the market imperfections that have stifled growth in the agricultural sector*
- *Mutual organisation, private limited liability company*
- *Corporate membership*
- *Market use of the Exchange is voluntary*

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# OWNERSHIP & CONTROL



- |                           |                          |                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
|---------------------------|--------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1. AAI                    | 9. Quality Commodities   | <ul style="list-style-type: none"><li>□ Currently owned by 15 Member-Brokers</li><li>□ 2 Members seats offered for sale (in red)</li><li>□ Members governed by Exchange Rules &amp; Regulations</li><li>□ Board seats comprise; 1 Independent Chairman, 8 Member-brokers, 3 Institutional (ZNFU, MAZ &amp; BAZ) and 3 Ex-officio (PROFIT, ED &amp; FD)</li><li>□ Total staff compliment of 6</li><li>□ Initial financial and technical support by USAID-PROFIT</li></ul> |
| 2. Afgri Corporation      | 10. Rintoul              |                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
| 3. <b>Amagrain</b>        | 11. Sakiza Spinning      |                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
| 4. Cargill Zambia         | 12. Savanna Commodities  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
| 5. CHC Commodities        | 13. Seaboard Commodities |                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
| 6. <b>Dunavant Zambia</b> | 14. Simba Milling        |                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
| 7. Export Trading Company | 15. Zdenakie             |                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
| 8. Olam Zambia            |                          |                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |

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# ZAMACE SERVICES

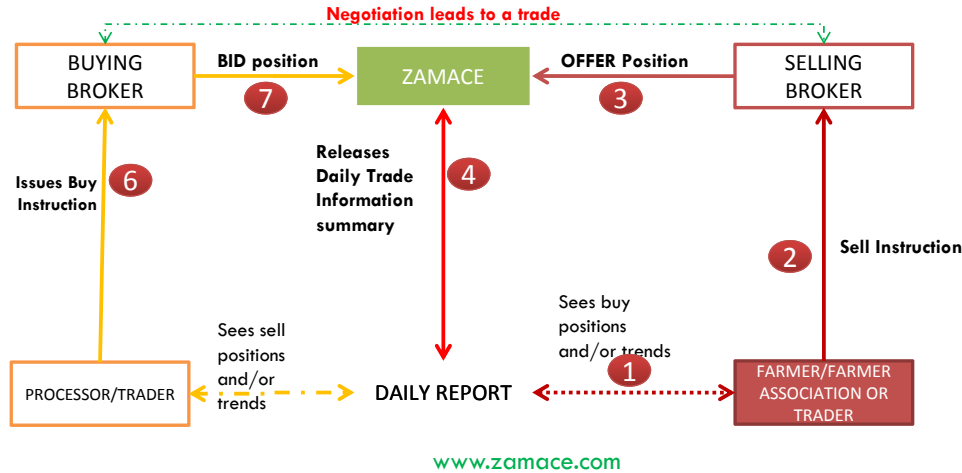


## 1. Commodity Trading

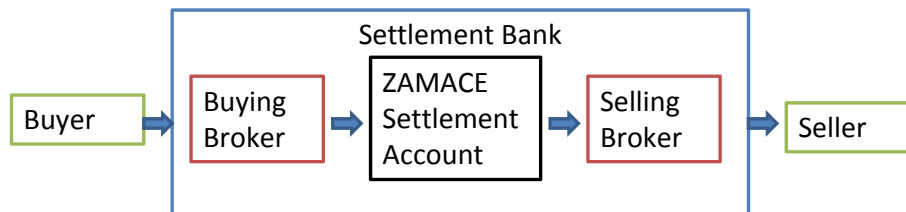


- Recorded first trade on 4<sup>th</sup> October 2007
- Trade major grain and oil seeds (maize, wheat, soya beans and sunflower)
- Other commodities traded as well including processed products (soya/cotton cake, maize meal, bran, edible beans, fertiliser and cement)
- Public place positions to buy/sell through broker

# Basic Schematic



# Envisaged Settlement Guarantee Model



### Broker Risk Exposure Formula

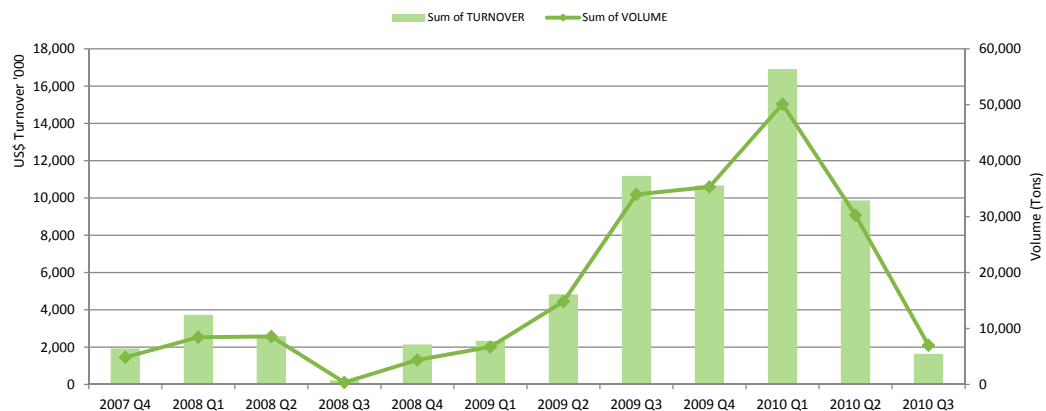
(All 'Buy' Trades Undelivered x % value) **PLUS** ( All 'Buy' Trades Delivered x 100% value) **PLUS**

(All 'Sell' Trades Undelivered x % value) **PLUS** (All 'Sell' Trades Delivered x 0% value) **MINUS**

Balance in Broker Account **EQUALS** Broker Risk Exposure



## Quarterly Total Turnover & Volume



## Commodity Contribution by Total Turnover Oct 2007 – Aug 2010

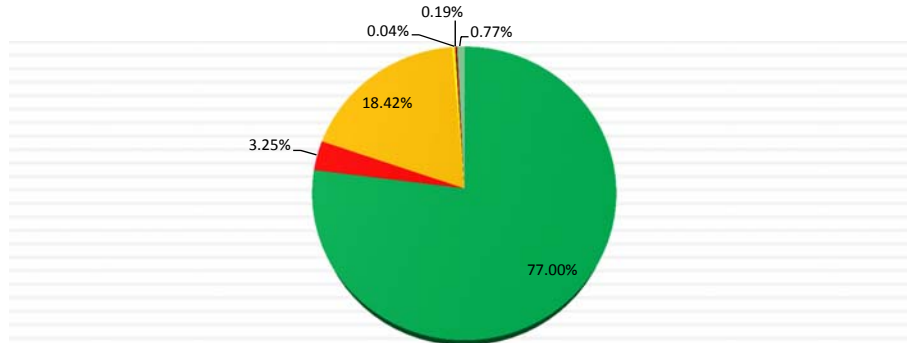


COMMODITY CATEGORY	TURNOVER (US\$)
GRAIN	52,425,636.15
MAIZE MEAL	2,212,979.59
OIL SEED	12,544,868.24
PULSES	221,223.00
BRAN	27,875.00
CEMENT	127,362.90
FERTILISER	527,050.00
<b>Grand Total</b>	<b>68,086,994.88</b>

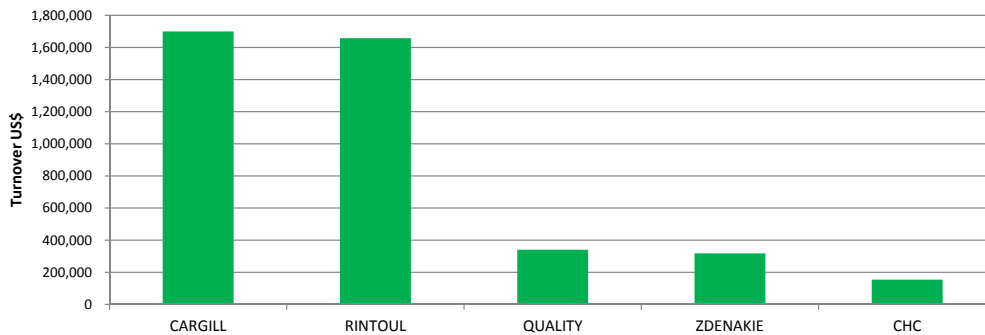
# Commodity Contribution by Total Turnover Oct 2007 – Aug 2010



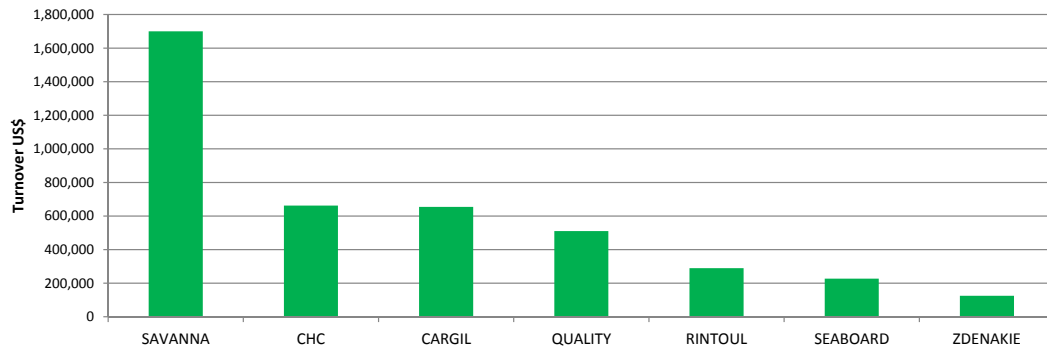
■ GRAIN ■ MAIZE MEAL ■ OIL SEED ■ PULSES ■ BRAN ■ CEMENT ■ FERTILISER



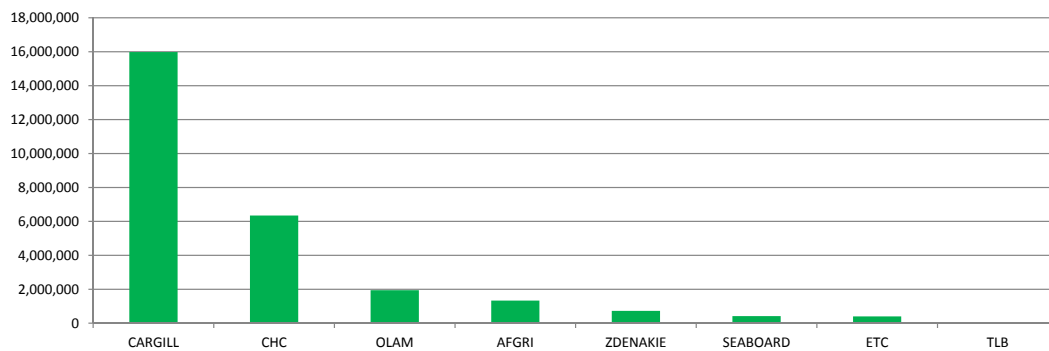
# YTD Bid Side Member-Broker Ranking



## YTD Offer Side Member-Broker Ranking



## YTD Registered Trades Member-Broker Ranking



## 2. Grades & Standards



- ZAMACE has developed quality standards, acceptable to and recognised by the agricultural industry
- Harmonised Wheat standard with SAFEX standard
- Exchange contracts adhere to these standards
- Laboratory service for independent quality testing
- Ring testing with South African Grain Laboratory (SAGL)
- More standards requested by market e.g rice, barley, edible beans and groundnuts



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## ZAMACE Maize Standard



QUALITY PARAMETER	UOM	GRADES		
		A	B	C
Moisture	%	12.5 max	12.5 max	12.5 max
Extraneous matters	%	1.0 max	1.5 max	2.0 max
Broken Grains	%	6.0 max	7.0 max	8.0 max
Other Coloured grains	%	3.0 max	4.0 max	5.0 max
Total other Defective grains of which:	%	11.0 max	18.5 max	26.0 max
a. Discoloured grains	%	3.0 max	6.0 max	9.0 max
b. Insect/pest damaged grains	%	3.0 max	6.0 max	9.0 max
c. Diseased grain	%	2.0 max	2.0 max	2.0 max
d. Immature or Shrivelled grain	%	1.0 max	1.5 max	2.0 max
e. Fungal damaged grains	%	0.5 max	1.0 max	1.5 max
f. Germinated grains	%	NIL	NIL	NIL
g. Pass thru 6.35mm sieve	%	1.5 max	2.0 max	2.5 max
Diplodia	%	NIL	NIL	NIL
Fusarium	%	0.5 max	0.5 max	0.5 max



### 3. Warehouse Inspection & Certification



- Secure storage guarantees Q&Q of stored crop
- ZAMACE trains and certifies warehouse operators to manage, grade and store commodities
- Critical to participation of emergent and small farmers – trade confidence in aggregation
- Identifying and inspecting storage in districts to develop WRS



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## ZAMACE and the Smallholder



- Provides transparency and price discovery
- Removes all position-takers between the farmer/trader and the end market
- Offers the best possible market price under prevailing market conditions
- Mitigates substantial risks in transactions
- Empowers the farmer to evolve from price-taker to price-setter
- Eventually will create the opportunity to access credit

**ZAMACE provides the conditions for 'commercialising' the smallholder and emergent farming sectors**



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# Chongwe Pilot 2008/09



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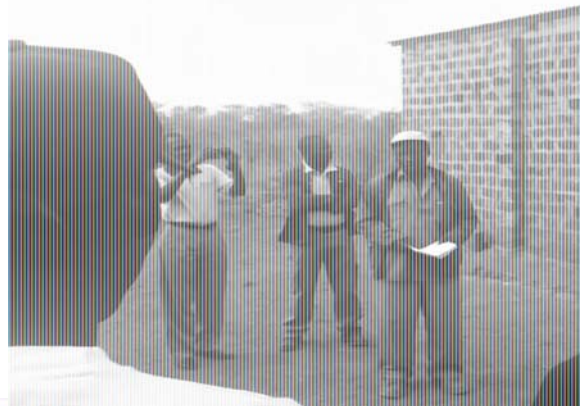
- Collaboration with Participatory Village Development in Isolated Areas (PaViDIA)
- PaViDIA supported villages to setup community sheds
- ZAMACE role was to encourage farmers to fill the sheds with maize for onward placement on the Exchange
- Each community appointed a shed quality manager



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# Smallholder Wisdom



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# Grain Marketing Expansion Program (GMEP) Model



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## Chongwe Pilot 2008/09



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- ZAMACE conducted training sessions for targeted smallholder farmers on grain grading, handling and storage
- Operations of the Exchange were also explained to the participants
- ZAMACE inspected +50 community sheds for storage of maize



Newton Samangwe – ZAMACE Operations Manager training Chongwe farmers



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# Example of GMPEP



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Region	Warehouse operators	Certified Capacities	Community Sheds/ First Level Aggregation Points	Estimated Capacity (Mt)
Southern Province	Moomba Investment - Monze & Kalomo Districts	300	Bulimo coop. shed	10
			Basanje shed	10
			Mulonga Iwili school	20
			Chiyobola slab	40
			Ntambo sheds	40
			Njola shed	30
			Namateba	30
			Manze urban	30
			Kanchele (Kalomo)	40
			Mpangwe shed	60
Central Province	Afgri - Choma District	5,000	Siamakuba shed	300
			Muzaka shed	300
			Singani shed	300
			Gamela shed	300
			Kalwelwe Shed	30
			Munga Shed	60
			Mulonga farm shed	40
Central Province	Afgri - Kabwe	5,000	Chalaba	30
			Tamatasha	40
			Masansa	1,000
			Libeya	60
Eastern Province	COMACO	1,000	Nyimba	400
			Mfuwe	100
			Lundazi	500

## GMPEP Start-up Areas



- Southern, Central and Eastern Provinces
- USAID/COMPETE funding this outreach initiative cost share basis
- WFP purchased maize shellers, scales and sieves for ZAMACE on-ward lease to farmers
- District warehouse operators in process of being certified



Chiyobola Community - Sibanje Shed, Monze District, Southern Province



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# GMEP Partners



- USAID-COMPETE is providing 12 months financial support to the initiative
- ZAMACE is facilitating the lease of smallscale shellers, scales and sieves to smallscale farmers through WFP/P4P support



A technician from SARO Agric conducting training on use of the shellers to Twikatane participating community in Central Province



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# GMEP in Southern Province



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## GMEP in Central Province – Twikatwane Cooperative



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## 4. Dispute Resolution



- ZAMACE transactions are backed by enforceable standardised contracts
- All disputes referred to Arbitration as per ZAMACE Rules of Arbitration
- Arbitration backed by Arbitration Act
- Encouraging respect for contracts

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# Partnerships



- EU has given ZNFU 2.4million Euros facility to establish 3 Agricultural Service Centres (ASC) in Southern/Central and Eastern Provinces
- This infrastructure will be ready in 2011/12 season
- Storage to be certified by ZAMACE, operated by a private entity and the lab and weighbridge to be operated by ZAMACE
- Potential collaboration with Technoserve to roll-out GMEP in other areas

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## Challenges



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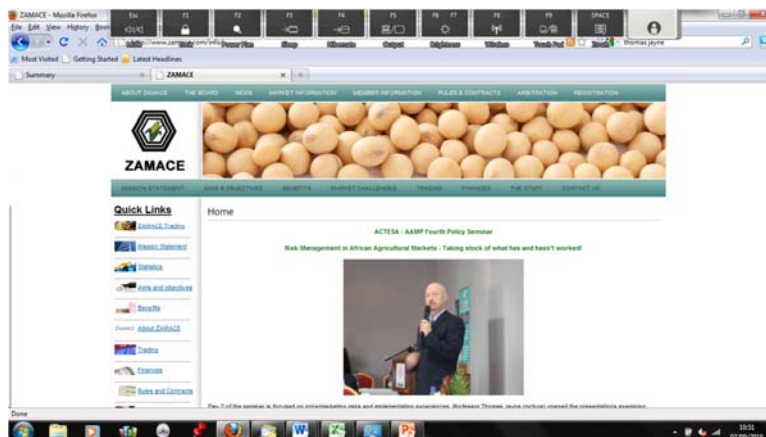
# Some of our Challenges



- Absence of legal framework for commodities Exchange – working with - Securities and Exchanges Commission (SEC) to develop framework
- Need for settlement guarantee structure – developing model with one of the banks
- ICT infrastructure for trading and WR issue and monitoring
- Training of stakeholders and legislators on importance of commodity exchange
- Enhancement of Laboratory equipment
- Streamlining role of Government in commodity trade
- General public awareness of commodities exchange is low

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# Thank you!



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